

REMARKS

By this Amendment, the claims are amended merely to clarify the recited subject matter and new claims 31-35 are added to more fully claim the disclosed invention. Additionally, Figure 13 and the specification are amended and an Abstract is submitted, as required by the Office Action. New claims 31-35 are patentable over the cited prior art for substantially the same reasons as the remaining claims. Claims 1-35 are pending.

The Office Action objected to the existing drawings because of various noted informalities. Applicant submits that amended Figure 13 overcomes the objections by including reference character 110, 111 and correctly using the reference character 53 to label the first switching unit.

The Office Action objected to claims 5, 6, 7, 8, 16, 17, 22 and 23 and to the specification because it allegedly fails to teach establishing a protocol but rather teaches establishing a connection or link using a protocol. By this Amendment, the claims have been amended to replace the term “radio access control protocol” with “link access control protocol”; Applicant submits that such an amendment overcomes the objection.

The Office Action rejected claim 2 under 35 U.S.C. 112, second paragraph, for allegedly being indefinite. Applicant submits that the amendment to claim 2 overcomes the rejection.

The Office Action rejected claims 1, 13 and 19 under 35 U.S.C. § 102 as being anticipated by Akoi et al. (U.S. 5,757,792; hereafter “Akoi et al.”). Claims 1, 6, 8, 13, 15, 17, 19, 21 and 23 were rejected under 35 U.S.C. § 102 as being anticipated by Roobol et al. (U.S. 6,363,058; hereafter “Roobol”). Claims 1, 2, 3, 13, 14, 19, 20 and 24 were rejected under 35 U.S.C. § 102 as being anticipated by Gorsuch et al. (U.S. 6,081,536; hereafter “Gorsuch”). Claims 1, 5, 7, 13, 15, 16, 18, 19, 21, 22 and 30 were rejected under 35 U.S.C. § 102 as being anticipated by Sicher et al. (U.S. 6,112,084; hereafter “Sicher”). Claims 1, 4, 5, 13, 15, 16, 19, 21, 22, 25 under 35 U.S.C. § 102 as being anticipated by Rotter et al. (U.S. 5,901,143; hereafter “Rotter”). Claims 11, 12, 28 and 29 were rejected under 35 U.S.C. § 103 as being unpatentable over Gorsuch and Tracy et al. (U.S. 6,041,089; hereafter “Tracy”). Claims 9, 10, 26 and 27 were rejected under 35 U.S.C. § 103 as being unpatentable over Gorsuch in view of Lin et al. (U.S. 6,400,701; hereafter “Lin”).

Applicant traverses all of the prior art rejections because no combination of the cited prior art, analyzed individually or in combination, teaches or suggest the claimed approach for handling two or more simultaneous data calls on one mobile station. As explained in the

specification and reflected in the pending claims, only one common traffic channel is assigned to two or more simultaneous calls of the mobile station, and the capacity of the common traffic channel is shared between the simultaneous calls.

Akoi merely discloses a method wherein two half-rate traffic channels are allocated for speech communication and data communication to a mobile station. The half-rate traffic channels are two separate traffic channels that alternate in the TDMA time slot allocated to the mobile station. This approach is similar to the half-rate traffic channel concept specified in the ETS GSM specifications. However, this approach is totally different from the claimed invention which assigns a common traffic channel to two or more simultaneous calls of the same mobile station, and shares the capacity of the common traffic channel between the simultaneous calls. Thus, the subject matter of independent claims 1, 13 and 19 (and their respective dependent claims) are not anticipated by Akoi.

Roobol fails to remedy this deficiency of Akoi because the filing date of Roobol is April 15, 1998, which is later than priority date 9 April 1998 of the present invention. Applicant submits herewith a Declaration Under Rule 131 with accompanying evidence that supports a conception date of February 17, 1998. Therefore, the Roobol non-provisional application is not prior art to the present invention. Applicant notes that Roobol can claim an earlier U.S. filing date of September 24, 1997 (corresponding to the filing date of its provisional application No. 06/059,770). However, Applicant's review of that provisional application indicates that the subject matter of the Roobol provisional application fails to include the subject matter identified as corresponding to Applicant's invention. Therefore, Roobol fails to teach or suggest the claimed invention.

Similarly, Sicher is not prior art to the present invention. The U.S. filing date of Sicher is March 24, 1998. Attached please find a copy of a Declaration under Rule 131 and supporting evidence in the form of a cover page of the invention report for the present invention. The date of the invention report and the Declaration indicate that the invention was conceived, at the latest, on February 17, 1998 (the date of the report), which is earlier than the filing date of Sicher. Subsequently, and with due diligence, the corresponding Finnish application (the earliest priority application for this invention) was filed on April 9, 1998. Therefore, Sicher et al does not establish prior art for the present application.

Similarly, the U.S. filing date of Lin (march 31, 1998) is also after February 17, 1998; therefore, Lin is not prior art to the claimed invention.

Robool, Sicher and Lin fails to be prior art, Gorsuch, analyzed individually or in combination with the other cited prior art, fails to remedy the deficiencies of Akoi because Gorsuch merely discloses a method for providing a wireless ISDN connection from an ISDN modem to a PSTN via a CDMA subscriber unit, a CDMA radio interface, and a CDMA base station. ISDN channels (2B+D) provide one ISDN data stream that encapsulated into wireless protocol utilized in the CDMA radio interface. The available radio channel spectrum is subdivided into narrower subchannels each having a dedicated spreading code. The number of subchannels and thereby the bandwidth allocated to the wireless ISDN connection at each specific time is adjusted dynamically according to the bandwidth required for transmitting the ISDN data stream over the CDMA system. Thus, from the CDMA system point of view, the ISDN connection is a single call with variable bandwidth requirements.

Therefore, Gorsuch fails to teach or suggest assignment of a common traffic channel to two or more simultaneous calls of the same mobile station, and to share the capacity of the common traffic channel between the simultaneous calls.

Similarly, Rotter fails to remedy the deficiencies of the other cited prior art references because Rotter merely discloses a method for providing MRLP (Multiple Radio Link Protocol) broadband link that can be used for synchronous transmission. Conventionally, the error connection of the MRLP link is based on repetition of data packets. Consequently, the transmission delay requirements of the synchronous transmission are not met.

Rotter merely teaches distinguishing between data packets related to synchronous transmission and data packets related to an asynchronous transmission (e.g., control information of the connection) with less strict delay requirements. Error connection with repetition is applied to the “asynchronous” data packets, so that the control functionality is enabled, but not to the “synchronous” data packets, so that synchronous transmission over the MRLP link is enabled. Thus, from the radio network point of view, the RLP link provides a single call.

Accordingly, Rotter, analyzed individually or in combination with the other cited prior art references, fails to teach or suggest assignment of a common traffic channel to two or more simultaneous calls of the same mobile station, and sharing the capacity of the common traffic channel between the simultaneous calls.

Moreover, Tracy, analyzed individually or in combination with the other cited prior art references, fails to remedy the deficiencies of the other cited prior art references because

Tracy merely discloses an apparatus and method for transmitting data to and from a data collection device using the short message service of the control channel of a personal communications system. The data collection packets are sent in place of "dummy" packets sent between subscriber devices and Mobile Switching Center (MSC) on the control channel.

Although the Office Action referred to column 5, lines 62-66, and column 6, lines 29-31 in Tracy, those sections only teach how "dummy" packets are recognized and replaced by metering data packets in a downlink direction on the control channel, and how the metering data packets are recognized and replaced by the "dummy" packets in an uplink direction on the control channel. Such recognition and replacement has nothing to do with the claimed invention.

Accordingly, Tracy, analyzed individually or in combination with the other cited prior art references, fails to teach or suggest assignment of a common traffic channel to two or more simultaneous calls of the same mobile station, and sharing the capacity of the common traffic channel between the simultaneous calls.

Therefore, no combination of the cited prior art teaches or suggests the claimed invention. Therefore, the claimed invention is patentable.

All objections and rejections having been addressed, Applicant requests issuance of a notice of allowance indicating the allowability of all pending claims. If anything further is necessary to place the application in condition for allowance, Applicant requests that the Examiner contact Applicant's undersigned representative at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
PILLSBURY WINTHROP LLP


CHRISTINE H. McCARTHY
Reg. No. 41844
Tel. No. (703) 905-2143
Fax No. (703)905-2500

Date: March 29, 2004
P.O. Box 10500
McLean, VA 22102
(703) 905-2000